a request from the power-transmitting apparatus **100**, the electronic device **200** transmits power received in the electronic device **200** as the received power information to the power-transmitting apparatus **100**.

[0056] When the CPU **110** receives the received power information of the electronic device **200** (YES in Step S**407**), the CPU **110** proceeds to Step S**408**. When the CPU **110** does not receive the received power information of the electronic device **200** (NO in Step S**407**), the CPU **110** returns to Step S**407**, and waits to receive the received power information from the electronic device **200**.

[0057] In Step S**408**, the CPU **110** calculates a ratio (power efficiency) of the transmitted power acquired in Step S**401** and the received power indicated by the received power information acquired in Step S**407**, and proceeds to Step S**409**. For example, when the transmitted power is 0.5 W and the received power of the electronic device **200** is 0.2 W, the power efficiency is 40%. When the transmitted power is 3 W and the received power of the electronic device **200** is 1.5 W, the power efficiency is 50%.

[0058] In Step S**409**, the CPU **110** compares the power efficiency obtained in Step S**408** to the power efficiency threshold determined in Step S**404**, S**405**, or S**406**. When the power efficiency obtained in Step S**408** is less than the power efficiency threshold determined in Step S**404**, S**405**, or S**406** (YES in Step S**409**), the CPU **110** proceeds to Step S**410**. When the power efficiency obtained in Step S**408** is greater than or equal to the power efficiency threshold determined in Step S**404**, S**405**, or S**406** (NO in Step S**409**), the CPU **110** proceeds to Step S**411**.

[0059] In Step S**410**, the CPU **110** determines that there is a foreign substance, and sets a flag indicating that there is a foreign substance. In Step S**411**, the CPU **110** determines that there is no foreign substance, and sets a flag indicating that there is no foreign substance. In other words, the CPU **110** sets a foreign substance flag (foreign substance flag=1) when there is a foreign substance, and resets the foreign substance flag (foreign substance flag=0) when there is no foreign substance.

[0060] For example, when the transmitted power is 0.5 W and the received power is 0.2 W, the expression of power efficiency (40%)>power efficiency threshold (35%) is satisfied, and thereby the CPU **110** determines that there is no foreign substance. When the transmitted power is 0.5 W and the received power is 0.1 W, the expression of power efficiency (20%)<power efficiency threshold (35%) is satisfied, and thereby the CPU **110** determines that there is a foreign substance. When the transmitted power is 3 W and the received power is 1.5 W, the expression of power efficiency (50%)>power efficiency threshold (40%) is satisfied, and thereby the CPU **110** determines that there is no foreign substance. When the transmitted power is 3 W and the received power is 1 W, the expression of power efficiency (33%)<power efficiency threshold (40%) is satisfied, and thereby the CPU **110** determines that there is a foreign substance. When the transmitted power is 10 W and the received power is 5 W, the expression of power efficiency (50%)>power efficiency threshold (45%) is satisfied, and thereby the CPU **110** determines that there is no foreign substance. When the transmitted power is 10 W and the received power is 4 W, the expression of power efficiency (40%)<power efficiency threshold (45%) is satisfied, and thereby the CPU **110** determines that there is a foreign substance.

[0061] As illustrated in FIG. **4**, in the present embodiment, the lower the transmitted power, the lower the power efficiency threshold for foreign substance determination is set, and the higher the transmitted power, the higher the power efficiency threshold for foreign substance determination is set. By doing so, there are fewer opportunities to determine that there is a foreign substance when the transmitted power is small. Consequently, power transmission to the electronic device **200** can be completed in a shorter period of time. On the other hand, when the transmitted power is high, foreign substances are positively determined, thereby increasing safety during the power transmission.

[0062] Although the power efficiency threshold is determined in accordance with the transmitted power in the flow illustrated in FIG. **4**, the power efficiency threshold can be determined in accordance with the power classes of the power-transmitting apparatus **100** and the electronic device **200**. In addition, the same result can be obtained by correcting the power efficiency determined in Step S**408** with a correction coefficient determined in accordance with the transmitted power, and comparing the correction result to a fixed power efficiency threshold. The correction coefficient can be determined by a process or a class similar to those in Steps S**402** to S**406**.

Second Embodiment

[0063] FIG. **5** is a flowchart for explaining another operation of the foreign substance detection process (Step S**306**). Here, the presence of a foreign substance is determined by variation of an antenna current flowing through an antenna **101**. A computer program that realizes the process of the flowchart illustrated in FIG. **5** is stored in a ROM **108**, and a CPU **110** reads the computer program from the ROM **108** and executes the computer program, thereby realizing the process illustrated in FIG. **5**.

[0064] In Step S**501**, the CPU **110** acquires transmitted power of a power-transmitting apparatus **100**. The transmitted power is power output to an electronic device **200** from the power-transmitting apparatus **100** based on the transmitted power determined in Step S**304**. After acquiring the transmitted power, the CPU **110** proceeds to Step S**502**.

[0065] In Step S**502**, the CPU **110** determines whether the transmitted power acquired in Step S**501** is at least 1 W. When the transmitted power acquired in Step S**501** is at least 1 W (YES in Step S**502**), the CPU **110** proceeds to Step S**503**. When the transmitted power acquired in Step S**501** is less than 1 W (NO in Step S**502**), the CPU **110** proceeds to Step S**504**.

[0066] In Step S**503**, the CPU **110** determines whether the transmitted power acquired in Step S**501** is at least 6 W. When the transmitted power acquired in Step S**501** is at least 6 W (YES in Step S**503**), the CPU **110** proceeds to Step S**506**. When the transmitted power acquired in Step S**501** is less than 6 W (NO in Step S**503**), the CPU **110** proceeds to Step S**505**.

[0067] In Step S**504**, the CPU **110** sets an antenna current variation threshold to 20 mA, and proceeds to Step S**507**. In Step S**505**, the CPU **110** sets an antenna current variation threshold to 15 mA, and proceeds to Step S**507**. In Step S**506**, the CPU **110** sets an antenna current variation threshold to 10 mA, and proceeds to Step S**507**.

[0068] For example, when the transmitted power is 0.5 W, the antenna current variation threshold is 20 mA. When the transmitted power is 3 W, the antenna current variation